

Table 2 — Characteristics of the PE compound, tested in the form of pipe

Characteristics	Units	Requirements	Test parameters	Test method
Resistance to gas constituents	h	≥ 20	80 °C 2 MPa	Annex B
Resistance to rapid crack propagation (RCP): S4 test (e ≥ 15 mm)	bar	$p_c \geq 1,5 \times MOP$ with $p_c = 3,6 \times p_{C,S4} + 2,6$ (bar) ^a	0 °C	ISO 13477
Resistance to slow crack growth	h	≥ 500	80 °C; 8,0 bar ^b 80 °C; 9,2 bar ^c	ISO 13479
Resistance to weathering (for non-black compounds only)		After weathering;	$E \geq 3,5 \text{ J/m}^2$ ^{e)}	ISO 16871
		Hydrostatic strength of pipe ^d	80°C; ≥ 1000 h	ISO FDIS 1167-1/-2
		Elongation at break of pipe	≥ 350 % ISO 8085-3	ISO 11413 Jointing condition 1
		Decohesion of an electrofusion joint – percent brittle failure	23 °C; $\leq 33,3$ %	ISO 6259-3 ISO 13954

a Full scale/S4 correlation factor is equal to 3,6 and is defined by the formula:

$$p_{C,FS} + p_{atm} = 3,6 (p_{C,S4} + p_{atm})$$

NOTE Attention is drawn to the fact that the correlation factor may be modified, when revising ISO 13477, according to the result of work of ISO/TC 138/SC5 'Plastics pipes, fittings and valves for the transport of fluids - General properties of pipes, fittings and valves of plastics materials and their accessories - Test methods and basic specifications'.

If the requirement is not met, then retest using the full-scale test ISO 13478. In this case:

$$p_c = p_{C,FS}$$

b Test parameter for PE 80, d_n 110 mm or 125 mm, SDR 11.

c Test parameter for PE 100, d_n 110 mm or 125 mm, SDR 11.

d Test parameter for PE 80: 4,0 MPa. Test parameter for PE 100: 5,0 MPa.

e The value of $3,5 \text{ GJ/m}^2$ represents the yearly exposure to sunlight near the 50th degree of latitude. This value may not be appropriate for other global locations; in such cases national standards and regulations will apply